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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,670	02/11/2005	Kan Kawasaki	265898US3PCT	1527
22850	7590	07/18/2006	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.			PICO, ERIC E	
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ALEXANDRIA, VA 22314			PAPER NUMBER	

3654

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/524,670	Applicant(s) KAWASAKI ET AL.	
	Examiner Eric Pico	Art Unit 3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02/11/2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>02/11/05, 06/17/05</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the exit door claimed in claim 5 and 6 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim(s) 1, 3, and 4 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang et al. GB Patent Application No. 2352221 in view of Aulanko et al. U.S. Patent No. 5823298.

4. **Regarding claim 1**, Yang et al. discloses an elevator comprising a cage, referred to as elevator car 1, vertically moving in a cage moving space arranged in an elevator shaft, referred to as hoistway 2, and having cage-side sheaves, referred to as pulleys 120, 121, a counterweight 3 vertically moving in a counterweight moving space arranged beside the cage moving space in the elevator shaft 2, and having a counterweight-side sheave, referred to as pulley 123, a diverting sheave, referred to as pulley 11, disposed above the counterweight moving space, an upper sheaves, referred to as pulley 122 disposed in a top part of the counterweight moving space, a hoist, referred to as built-in winding apparatus 10, and having a drive sheave 11, and a main rope 101 successively wound around the cage-side sheave 120, 121, the upper sheave 122, the counterweight-side sheave 123, and the diverting and drive sheave 11, the main rope 101 having a first end fastened to an upper part, referred to fixing portion 1c, of the elevator shaft 2 and a second end fastened to the counterweight 3.

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5. Yang et al. is silent concerning a pair of upper sheaves disposed in a top part of the counterweight moving space, the hoist disposed in a space in the elevator shaft other than both the cage moving space and the counterweight moving space, and having the drive sheave positioned below the pair of upper sheaves.

6. Aulanko et al. teaches an elevator comprising a cage, referred to as elevator car 1, vertically moving in a cage moving space arranged in an elevator shaft 15, and having cage-side sheaves, referred to as diverting pulleys 8, a counterweight 2 vertically moving in a counterweight moving space arranged beside the cage moving space in the elevator shaft 15, and having a counterweight-side sheave, referred to as diverting pulley 9, a pair of upper sheaves, referred to as first and second diverting pulleys 5, 4, disposed in a top part of the counterweight moving space, a hoist, referred to as machinery 6, disposed in a space in the elevator shaft other than both the cage moving space and the counterweight moving space, and having a drive sheave, referred to as traction sheave 7, positioned below the pair of upper sheaves 4, 5, and a main rope, referred to as hoisting rope 3, successively wound around the cage-side sheave 8, one of the pair of upper sheaves 4, the drive sheave 7, the other upper sheave 5, the counterweight-side sheave 9, the main rope 3 having a first end fastened to an upper part of the elevator shaft, referred to as anchorage 12, 13.

7. It would have been obvious to one of ordinary skill in the art at the time of the invention to dispose the pair of upper sheaves as taught by Aulanko et al. in a top part of the counterweight moving space disclosed by Yang et al., the hoist disclosed by Yang et al. in the elevator shaft other than both the cage moving space and the

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counterweight moving space as taught by Aulanko et al. and position the drive sheave disclosed by Yang et al. below the pair of upper sheaves as taught by Aulanko et al. to provide an arrangement of parts to optimize the space requirements within the elevator shaft.

8. **Regarding claim 3**, Yang et al. discloses the cage-side sheaves 120, 121, are a first cage-side sheave 120 and a second cage-side sheave 121 disposed at opposite side positions, respectively, on a bottom surface of the cage 1, and a part of the main rope 101 wound around the first cage-side sheave 120 has a free end fastened to a fixed part 1c in an upper part of the elevator shaft 2.

9. **Regarding claim 4**, Yang et al. discloses the counterweight moving space is on a side of one of sidewalls of the cage 1.

10. Claim(s) 5 and 6 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang et al. GB Patent Application No. 2352221 in view of Aulanko et al. U.S. Patent No. 5823298 as applied to claims 1,3, and 4 above, and further in view of Hashiguchi et al. JP Publication No. 2000-255933.

11. **Regarding claim 5**, Yang et al. is silent concerning the counterweight moving space is on a side of a back wall of the cage opposite a front wall of the cage provided with an exit door.

12. Hashiguchi et al. teaches a counterweight moving space on a side of a back wall of a cage 2 opposite a front wall of the cage 2 provided with an exit door 15.

13. It would have been obvious to one of ordinary skill in the art at the time of the invention to have the counterweight moving space disclosed by Yang et al. on a side of

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a back wall of the cage opposite a front wall of the cage provided with an exit door as taught by Hashiguchi et al. to provide an arrangement of parts to optimize the space requirements within the elevator shaft.

14. **Regarding claim 6**, Yang et al. discloses a diverting sheave 122 is disposed at a position above the second cage-side sheave 121 in an upper part of the elevator shaft 2 and the main rope 101 is guided to the counterweight moving space by the second cage-side sheave 121 and the upper sheave 122.

15. Yang et al. is silent concerning the main rope guided to the counterweight moving space on the side of the back wall of the cage opposite the front wall of the cage provided with an exit door.

16. Hashiguchi et al. teaches a diverting sheave 10 is disposed at a position above a second cage-side sheave 8 in an upper part of an elevator shaft 1, and a main rope 12 is guided to a counterweight moving space on a side of a back wall of a cage 2 opposite the front wall of the cage 2 provided with an exit door 15 by the second cage-side sheave 8 and the upper sheaves 10, 11.

17. It would have been obvious to one of ordinary skill in the art at the time of the invention to guide the main rope disclosed by Yang et al. to the counterweight moving space on the side of the back wall of the cage opposite the front wall of the cage provided with an exit door to provide an arrangement of parts as taught by Hashiguchi et al. to optimize the space requirements within the elevator shaft.

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18. Claim(s) 2-4 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang et al. GB Patent Application No. 2352221 in view of Boll EP Patent Application 0866018 and Aulanko et al. U.S. Patent No. 5823298.

19. **Regarding claim 2**, Yang et al. discloses an elevator comprising a cage, referred to as elevator car 1, vertically moving in a cage moving space arranged in an elevator shaft, referred to as hoistway 2, and having cage-side sheaves, referred to as pulleys 120, 121, a counterweight 3 vertically moving in a counterweight moving space arranged beside the cage moving space in the elevator shaft 2, and having a counterweight-side sheave, referred to as pulley 123, a diverting sheave, referred to as pulley 11, disposed above the counterweight moving space, an upper sheaves, referred to as pulley 122 disposed in a top part of the counterweight moving space, a hoist, referred to as built-in winding apparatus 10, and having a drive sheave 11, and a main rope 101 successively wound around the cage-side sheave 120, 121, the upper sheave 122, the counterweight-side sheave 123, and the diverting and drive sheave 11, the main rope 101 having a first end fastened to an upper part, referred to fixing portion 1c, of the elevator shaft 2 and a second end fastened to the counterweight 3.

20. Yang et al. is silent concerning a plurality of counterweight-side sheaves, a plurality of diverting sheaves disposed above the counterweight moving space, a pair of upper sheaves disposed in a top part of the counterweight moving space, a hoist disposed in a space in the elevator shaft other than both the cage moving space and the counterweight moving space, and having a drive sheave positioned below the pair of upper sheaves.

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21. Aulanko et al. teaches an elevator comprising a cage, referred to as elevator car 1, vertically moving in a cage moving space arranged in an elevator shaft 15, and having cage-side sheaves, referred to as diverting pulleys 8, a counterweight 2 vertically moving in a counterweight moving space arranged beside the cage moving space in the elevator shaft 15, and having a counterweight-side sheave, referred to as diverting pulley 9, a pair of upper sheaves, referred to as first and second diverting pulleys 5, 4, disposed in a top part of the counterweight moving space, a hoist, referred to as machinery 6, disposed in a space in the elevator shaft other than both the cage moving space and the counterweight moving space, and having a drive sheave, referred to as traction sheave 7, positioned below the pair of upper sheaves 4, 5, and a main rope, referred to as hoisting rope 3, successively wound around the cage-side sheave 8, one of the pair of upper sheaves 4, the drive sheave 7, the other upper sheave 5, the counterweight-side sheave 9, the main rope 3 having a first end fastened to an upper part of the elevator shaft, referred to as anchorage 12, 13.

22. Boll teaches an elevator comprising a cage 2 vertically moving in a cage moving space arranged in an elevator shaft 1, and having cage-side sheaves 8, 9, a counterweight 11 vertically moving in a counterweight moving space arranged beside the cage moving space in the elevator shaft 1, and having a plurality of counterweight-side sheaves 12, 13, a plurality of diverting sheaves 10, 14 disposed above the counterweight moving space, and having a drive sheave 10, and a main rope 4 successively wound around the cage-side sheave 8, 9, the drive sheave and one of the diverting sheaves 10, one of the counterweight-side sheaves 12, the other diverting

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sheave 14, the other counterweight-side sheave 13, the main rope having a first end fastened to an upper part 6 of the elevator shaft 1 and a second end fastened to an upper part 7 of the elevator shaft 1.

23. It would have been obvious to one of ordinary skill in the art at the time of the invention to dispose the pair of upper sheaves as taught by Aulanko et al. in a top part of the counterweight moving space disclosed by Yang et al., the hoist disclosed by Yang et al. in the elevator shaft other than both the cage moving space and the counterweight moving space as taught by Aulanko et al. and position the drive sheave disclosed by Yang et al. below the pair of upper sheaves as taught by Aulanko et al. to provide an arrangement of parts to optimize the space requirements within the elevator shaft.

24. Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the invention to dispose a plurality of counterweight-side sheaves and a plurality of diverting sheaves as taught by Boll above the counterweight moving space disclosed by Aulanko et al. to facilitate the lifting of the counterweight.

25. **Regarding claim 3**, Yang et al. discloses the cage-side sheaves 120, 121, are a first cage-side sheave 120 and a second cage-side sheave 121 disposed at opposite side positions, respectively, on a bottom surface of the cage 1, and a part of the main rope 101 wound around the first cage-side sheave 120 has a free end fastened to a fixed part 1c in an upper part of the elevator shaft 2.

26. **Regarding claim 4**, Yang et al. discloses the counterweight moving space is on a side of one of sidewalls of the cage 1.

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27. Claim(s) 5 and 6 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang et al. GB Patent Application No. 2352221 in view of Boll EP Patent Application 0866018 and Aulanko et al. U.S. Patent No. 5823298 as applied to claims 2-4 above, and further in view of Hashiguchi et al. JP Publication No. 2000-255933.

28. **Regarding claim 5**, Yang et al. is silent concerning the counterweight moving space is on a side of a back wall of the cage opposite a front wall of the cage provided with an exit door.

29. Hashiguchi et al. teaches a counterweight moving space on a side of a back wall of a cage 2 opposite a front wall of the cage 2 provided with an exit door 15.

30. It would have been obvious to one of ordinary skill in the art at the time of the invention to have the counterweight moving space disclosed by Yang et al. on a side of a back wall of the cage opposite a front wall of the cage provided with an exit door as taught by Hashiguchi et al. to provide an arrangement of parts to optimize the space requirements within the elevator shaft.

31. **Regarding claim 6**, Yang et al. discloses a diverting sheave 122 is disposed at a position above the second cage-side sheave 121 in an upper part of the elevator shaft 2 and the main rope 101 is guided to the counterweight moving space by the second cage-side sheave 121 and the upper sheave 122.

32. Yang et al. is silent concerning the main rope guided to the counterweight moving space on the side of the back wall of the cage opposite the front wall of the cage provided with an exit door.

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33. Hashiguchi et al. teaches a diverting sheave 10 is disposed at a position above a second cage-side sheave 8 in an upper part of an elevator shaft 1, and a main rope 12 is guided to a counterweight moving space on a side of a back wall of a cage 2 opposite the front wall of the cage 2 provided with an exit door 15 by the second cage-side sheave 8 and the upper sheaves 10, 11.

34. It would have been obvious to one of ordinary skill in the art at the time of the invention to guide the main rope disclosed by Yang et al. to the counterweight moving space on the side of the back wall of the cage opposite the front wall of the cage provided with an exit door to provide an arrangement of parts as taught by Hashiguchi et al. to optimize the space requirements within the elevator shaft.

Conclusion

35. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mustalahti et al. U.S. Patent No. 5878847, Aulanko et al. U.S. Patent No. 5906251, Kobayashi et al. U.S. Patent No. 6247557, Faletto U.S. Patent No. 6471012, Yang et al. U.S. Patent No. 7025177, Wang U.S. Publication No. 2004/0195047, Ishii et al. U.S. Publication No. 2004/0206580, Miyake et al. JP Publication No. 2001-048450, Fujita et al. JP Publication No. 2002-179355.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Pico whose telephone number is 571-272-5589. The examiner can normally be reached on 6:30AM - 3:00PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Katherine Matecki can be reached on 571-272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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KATHY MATECKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600